

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

THIS ENVIRONMENTAL ASSESSMENT WAS POSTED IN DECEMBER, 2006. SEVERAL ELEMENTS OF THE APPLICATION HAVE BEEN CHANGED AND THE APPLICATION MUST BE RENOTICED. THE ENVIRONMENTAL ASSESSMENT HAS BEEN REWRITTEN.

1. Applicant/Contact name and address: **Robert Bryant
5951 116th Avenue SE
Bellevue WA 98006**
2. Type of action: **Application for Beneficial Water Use Permit No. 30024820-411
Bryant Tracts No. 3 Minor Subdivision**
3. Water source name: **Groundwater**
4. Location affected by action: **Two wells in the SWNWNE of Sec 7, Twp 10N, Rge 3W,
Lewis and Clark County**
5. Narrative summary of the proposed project, purpose, action to be taken, and objectives:
This application proposes to appropriate water from two groundwater wells. The wells are located in the SWNWNE of Sec 7, Twp 10N, Rge 3W, Lewis and Clark County. The wells are referred to as #1 and #2. H & L Drilling Inc., a licensed well driller completed both wells on November 17, 2004. Well #1 will produce 150 gpm and is 174 feet deep. Well #2 will produce 60 gpm and is 187 feet deep. The applicant is requesting 150 GPM up to 20.7 acre-feet per year.

The water would be used for multiple domestic (58 homes) from January 1 through December 31, and lawn and garden irrigation on 9.6 acres from April 15 through October 15 of each year. The place of use is the Bryant Tracts No. 3 Minor Subdivision located in the N2NE of Sec 7, Twp 10N, Rge 3W, Lewis and Clark County.

The DNRC shall issue a water use permit to the applicant if the criteria in 85-2-311, MCA are met.

Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)

**Montana Natural Heritage Program (MTNHP)
Montana Department of environmental Quality (DEQ)
Bill Uthman – DNRC Hydrogeologist
Helena Valley Soil Survey, Lewis and Clark County**

Part II. Environmental Review

1. **Environmental Impact Checklist:**

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity - Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.

Determination: **No significant adverse impact.**

This proposed project would not affect chronically dewatered streams as identified by DFWP: it does not seek to develop water from a surface source. The water is to be diverted from groundwater wells.

Water quality - Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

Determination: **No significant adverse impact.**

This proposed project would not affect water quality in perennial streams. The water is to be diverted from groundwater wells.

Groundwater - Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.

Determination: **No significant adverse impact.**

The applicant has demonstrated that the water for the proposed project is physically and legally available according to DNRC evaluation procedures. The nearest surface water is Tenmile Creek located approximately ½ mile south of the proposed wells. The applicant acknowledges a potential stream depletion impact of 22.7 acre-feet to nearby Tenmile Creek. An application for mitigation to address the depletion has been received by the Department. See Application to Change a Water Right No. 30028246-411.

DIVERSION WORKS - Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.

Determination: **No significant adverse impact.**

The project would not affect streams or riparian areas. Two wells were drilled in the proposed subdivision by H & L Drilling Inc., a licensed well driller. They were drilled in accordance with the Montana Board of Water Well Contractors and the Administrative Rules of Montana and are subject to DEQ requirements. The well referred to as Well #1 was drilled in November of 2004 to a depth of 174 feet. Well #1 has an 8⁵/₈" steel casing from +2 to 150 feet. The well referred to as Well #2 was also drilled in November of 2004 to a depth of 187 feet. The well has a 6" steel casing from +2 to 157 feet. Both of the wells were grouted with cement from 0 to 20 feet during installation to prevent well contamination.

A Goulds 10 hp (Model 150H10 4) pump will be used in Well #1. The pump will produce 150 gpm with a head of 220 feet. A Goulds 5 hp (Model 60GS50 11/12) pump will be used in Well #2. The pump will produce 60 gpm with a head of 200 feet.

The wells will divert the water to a pump house located approximately 50 feet from the wells. Water lines from the pumps will be manifold together and connected to 17 Model 350 Well X-Trol hydropneumatic tanks. Pressure gauges and a flow meter will also be incorporated into the design. Service connections will be individually metered.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."

Determination: **No significant adverse impact.**

According to MTNHP there are several species of special concern in the area. There are four vertebrate animals, the Canis lupus or Gray Wolf, Melanerpes lewis or Lewis's Woodpecker, Spizella breweri or Brewer's Sparrow and Cynomys ludovicianus or Black-tailed Prairie Dog. There are two vascular plants, the Cypripedium parviflorum or Small Yellow Lady's-slipper and the Atriplex truncate or Wedge-leaved Saltbush. None of the species are in the immediate project area boundaries. Although antelope, deer and small mammals frequent this area, the proposed subdivision is not located in an area with a high wildlife resource value. The proposed project would not impact any species of special concern.

Wetlands - Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.

Determination: **No functional wetlands have been identified in the project area.**

Ponds - For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.

Determination: **No pond development is involved in this project**

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.

Determination: **No significant adverse impact.**

The predominant soil type based on the Helena Valley Soil Survey is Nippt-Attewan Complex. A typical profile of the Nippt soil; the surface layer is light brownish gray gravelly loam 3" thick. The subsoil is brown gravelly clay loam 6" thick. The substratum is light gray extremely gravelly loam to 15 inches. Below this, to a depth of 60" is light gray extremely gravelly sand. A typical profile of the Attewan soil; the surface layer is brown loam 4" thick. The subsoil is in two parts. The upper part is brown clay loam 6" thick. The lower part is very pale brown loam 5" thick. The substratum is very pale brown loam to 23 inches and light yellowish brown extremely gravelly sand below. The Lewis and Clark County Water Resources Survey shows the soil complex is good mainly for road fill because of the extremely gravelly sandy soil. The soils are classified as severe for lawns but can probably sustain a healthy lawn with a veneer of topsoil.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.

Determination: **No significant adverse impact.**

The existing vegetative cover in the proposed area is native grasses, which will be disturbed during the construction phase. This may allow for the establishment or spread of noxious weeds. This should be controlled after the homes are in and lawn and garden areas established. Owners will be responsible for weed control on their own lots. All disturbed areas would be re-vegetated to provide erosion control.

AIR QUALITY - Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.

Determination: **No significant adverse impact.**

There may be deterioration of air quality due to the increased traffic within the subdivision. In addition, if any of the homes have wood burning stoves/fireplaces that are burned improperly, there may be noticeable or objectionable odors that could affect air quality and/or be offensive to other property owners. This impact would be temporary during the winter months when there is an air inversion.

HISTORICAL AND ARCHEOLOGICAL SITES - Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.

Determination: **No significant adverse impact.**

The Montana State Historic Preservation Office (SHPO) was not contacted about this project. This project is located on private property that had been in agriculture for many years. It is at the landowner's discretion to conduct a reconnaissance survey.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - Assess any other impacts on environmental resources of land, water and energy not already addressed.

Determination: **No additional impacts on environmental resources of land, water and energy not already addressed were identified.**

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.

Determination: **No significant adverse impact.**

This project is consistent with the existing development in the surrounding area. There are similar subdivisions both north and south of the area to be developed.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.

Determination: **No significant adverse impact.**

This project will not impact access to or the quality of recreational and wilderness activities. There are no recreational or wilderness areas adjacent to the proposed project.

HUMAN HEALTH - Assess whether the proposed project impacts on human health.

Determination: **No significant adverse impact.**

There is no information in the file concerning the type of waste water treatment plan that will be used for the subdivision. A review of the project by the Department of Environmental Quality would ensure human health would not be impacted.

PRIVATE PROPERTY - Assess whether there are any government regulatory impacts on private property rights.

Yes ☐ No ☒.

OTHER HUMAN ENVIRONMENTAL ISSUES - For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.

Impacts on:

- (a) Cultural uniqueness and diversity? **No significant adverse impact.**
- (b) Local and state tax base and tax revenues? **No significant adverse impact.**
This subdivision project should increase the local and state tax base and revenues. Although this is expected to be a positive impact, the magnitude of the potential increase in tax revenues has not been quantified.
- (c) Existing land uses? **No significant adverse impact.**
The existing land use was agricultural.
- (d) Quantity and distribution of employment? **No significant adverse impact.**
This project has the potential to increase the demand for services in the Helena area and create employment opportunities.
- (e) Distribution and density of population and housing? **No significant adverse impact.**
The development of this subdivision would increase the population growth outside the city limits of Helena. There will be 58 households at full development.
- (f) Demands for government services? **No significant adverse impact.**
This subdivision is surrounded by other subdivisions. Still there would be additional demand for a number of government and local services. The residents of the subdivision would need fire and police protection, bus service to schools, medical/health care services, solid waste disposal, postal services, road maintenance, etc.
- (g) Industrial and commercial activity? **No significant adverse impact.**
This subdivision is for multiple domestic and lawn and garden uses.
- (h) Utilities? **No significant adverse impact.**
This subdivision is surrounded by other subdivisions. The project would create additional needs for electrical power, natural gas, telephone lines, and cable television lines. All utilities will be installed underground in accordance with the Lewis and Clark County Subdivision Regulations.
- (i) Transportation? **No significant adverse impact.** **The project area has other subdivisions to the north and south. There will be increased traffic from this**

project out onto McHugh Lane to the west and North Montana Avenue on the east. The impacts from the increased traffic have not been determined at this time.

- (j) Safety? **No significant adverse impact.**

There may be safety impacts created by the increased traffic on Montana Avenue and McHugh Lane. The subdivision would increase the need for emergency services such as fire, police and medical. The response time for the emergency services may increase due to the growth of the Helena Valley area and limited resources and personnel. The developer will work with the individual services and they have been contacted about the subdivision.

- (k) Other appropriate social and economic circumstances? **No significant adverse impact.**

2. Secondary and cumulative impacts on the physical environment and human population:

Secondary Impacts: **No significant adverse impact.**

There are subdivisions immediately to the north and south of the proposed project. This project appears to be similar in size to the existing developments. The west boundary of the area is McHugh Lane and on the east, North Montana Avenue. The other subdivisions in the area are both large and small. Some have individual wells and others have public water supply systems. There is one pending groundwater permit application nearby; the Glacier Point Subdivision located to the north and east of Bryant #3. Some of the other subdivisions within the area are Bryant Subdivision, Pleasant Valley, Grass-land, Mungar Tracts, Fawn Meadows, Ten Mile Estates, and Riddock. No secondary impacts have been identified at this time.

Cumulative Impacts: There is substantial development in the area. A majority of the development are homes with individual wells as a water source. All foreseeable development in the vicinity of the proposed project will rely on groundwater from the alluvial aquifer or underlying fractured bedrock. If the growth rate in the Helena Valley continues at the present rate it is impossible to determine what the cumulative impacts from this project may be. There are no impacts anticipated. There have been no cumulative impacts identified at this time.

3. Describe any mitigation/stipulation measures: **The water right permit, if issued would be subject to all prior existing water rights in the source of supply. The applicant will also have to provide an adequate mitigation plan, to replace losses to surface water in the area. The applicant may also be required to submit a yearly report of monthly flow rate and volume measurements to the DNRC. Periodic static water level measurements may also be required. The application will go through the DNRC public notice procedure and water users concerned with the potential impacts will be given the opportunity to object to the application. The decision by the DNRC to grant or deny the application would not be made until these review processes are completed. In addition, during periods of extreme groundwater shortages, the operator of the public water supply can take the larger pump off-line and the subdivision can be placed on a restricted irrigation order.**

A mitigation application has been submitted; See Application to Change No. 30028246-411.

3. Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:
The no action alternative would prevent the applicant from obtaining water to develop a community water system for the subdivision. If the application was not granted, the individual lot owners in the subdivision would have to construct their own wells. The result could be a greater potential for an adverse impact to water quantity and quality because of the large number of wells that would be drilled to service 58 homes.

PART III. Conclusion

1. Preferred Alternative: **Issue the permit as applied for by the applicant or in some modified form considered reasonable.**
2. Comments and Responses: **Comments and responses were compiled by Schwarz Architecture & Engineering and can be viewed at the Helena Regional Office.**
3. Finding:
Yes ___ No **X** Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: **Based on a consideration of the criteria found in DNRC Administrative Rule 36.2.524, "Determining the Significance of Impacts," there is not a significant adverse impact. An EA is sufficient for this level of action. The possible impacts from the community water system and wells for the subdivision are not significant adverse impacts and thus do not warrant and EIS.**

Name of person(s) responsible for preparation of EA:

Name: Kathy Arndt
Title: Water Resource Specialist
Date: January 30, 2008